



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/812,967

03/31/2004

Toshihiro Morita

251011US6

4875

22850

7590

06/25/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

OLANIRAN, FATIMAT O

ART UNIT

PAPER NUMBER

2614

NOTIFICATION DATE

DELIVERY MODE

06/25/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/812,967	Applicant(s) MORITA ET AL.	
	Examiner FATIMAT O. OLANIRAN	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9,11,12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11-12,14-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-3, 5-9, 11-12 and 14-15 have been considered but are moot in view of the new ground(s) of rejection necessitated by applicant's amendment.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,5-9, 11-12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert et al. (6560577) in further view of Zhang (7266287).

Claim 1, Gilbert discloses an information processing apparatus for detecting inter-track boundaries, (abstract) comprising: means for generating noise-eliminated audio data by eliminating noise from audio data generated by digitally converting analog audio signals of a plurality of tracks (Fig. 2 and col. 3 line 61-67 and col. 4 line 20), the plurality of tracks having inter-track boundaries that are silent; means for detecting presumed inter-track boundaries presumed to be said inter-track boundaries of said plurality of tracks, based on portions of said noise-eliminated audio data, the portions having signal levels lower than a predetermined level threshold value (col. 5 lines 1-12, limitation, "predetermined threshold" is inherent to invention because silence is a threshold);

Art Unit: 2614

means for judging whether a number of presumed tracks is less than a number of said plurality of tracks, and for specifying said inter-track boundaries from said presumed inter-track boundaries, based on inter-track boundaries specifying information including said number of said plurality of tracks, wherein said means for detecting detects said inter-track boundaries of said plurality of tracks the presumed tracks being tracks divided by said presumed inter-track boundaries (Fig. 2 and col. 4 line 30-67 and col. 5 line 1-21);

Gilbert does not explicitly disclose based on an other level threshold value greater than said predetermined level threshold value, when the means for judging judges that said number of presumed tracks is less than said number of said plurality of tracks,

However Gilbert discloses changing a threshold when the means for judging judges that said number of presumed tracks is less than said number of said plurality of tracks (Fig. 2 and col. 5 lines 1-37).

Zhang discloses silence detection based on a predetermined threshold and an other level threshold value greater than said predetermined level threshold value when an error may have occurred (col. 7 lines 23-45).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the audio encoder of Gilbert with the audio blank detecting means of Zhang in order to have a reliable method of determining audio segments.

Art Unit: 2614

Claim 2 analyzed with respect to claim 1, Gilbert discloses said means for judging specifies as said inter-track boundaries presumed inter-track boundaries in between the presumed tracks (col. 4 line 30-39), said inter-track boundaries specifying information including the shortest playing time and the longest playing time (col 4 line 47-51).

Gilbert does not explicitly disclose the presumed tracks having playing times longer than a shortest playing time among playing times of said plurality of tracks and shorter than a longest playing time among of said plurality of playing times of the tracks.

However Gilbert discloses matching track lengths, (col. 5 line 27-31) and detecting a smaller than average track (col. 4 line 57-67).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the audio method of Gilbert determines a track length error by noting smaller or larger than average track lengths.

Claim 3 analyzed with respect to claim 1, Gilbert discloses wherein said means for judging presumes said presumed inter-track boundaries as said inter-track boundaries based on errors between presumed track playing times of the presumed tracks and playing times of said plurality of tracks (col. 5 line 25-37), said inter-track boundaries specifying information including the playing times of said plurality of tracks (col. 4 line 49-50).

Art Unit: 2614

Claim 5, Gilbert discloses an information processing method of an audio processing apparatus for detecting inter-track boundaries (abstract), comprising: generating, at the audio processing apparatus, noise-eliminated audio data by eliminating noise from audio data generated by digitally converting analog audio signals of a plurality of tracks, the plurality of tracks having inter-track boundaries that are silent (Fig. 2 col. 4 line 6-15 and col. 4 line 30-39); detecting, at the audio processing apparatus, presumed inter-track boundaries presumed to be said inter-track boundaries of said plurality of tracks, based on portions of said noise-eliminated audio data, the portions having signal levels lower than a predetermined level threshold value (Fig. 2 col. 5 line 1-12, limitation, “predetermined threshold” is inherent to invention because silence is a threshold); specifying, at the audio processing apparatus, said inter-track boundaries from said presumed inter-track boundaries, based on inter-track boundaries specifying information including a number of said plurality of tracks; judging, at the audio processing apparatus, whether a number of presumed tracks is less than said number of said plurality of tracks (Fig. 2 and col. 4 line 42-67); and detecting, at the audio processing apparatus, said inter-track boundaries of said plurality of tracks, the presumed tracks being tracks divided by said presumed inter-track boundaries (Fig. 2 and col. 5 line 1-37).

Gilbert does not explicitly disclose based on an other level threshold value greater than said predetermined level threshold value, when the audio processing apparatus judges that the number of presumed tracks is less than said number of said plurality of tracks.

Art Unit: 2614

However Gilbert discloses changing a threshold when the audio processing apparatus judges that the number of presumed tracks is less than said number of said plurality of tracks (Fig. 2 and col. 5 lines 1-37).

Zhang discloses silence detection based on a predetermined threshold and an other level threshold value greater than said predetermined level threshold value when an error may have occurred (col. 7 lines 23-45).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the audio encoder of Gilbert with the audio blank detecting means of Zhang in order to have a reliable method of determining audio segments.

Claim 6, Gilbert discloses a computer-readable medium including computer executable instructions, wherein the instructions, when executed by a processor, cause the processor (col. 3 lines 13-20) to perform a method comprising: generating noise-eliminated audio data by eliminating noise from audio data generated by digitally converting analog audio signals of a plurality of tracks, the plurality of tracks having inter-track boundaries that are silent (col. 4 line 6-15 and col. 4 line 30-39); detecting presumed inter-track boundaries presumed to be said inter-track boundaries of said plurality of tracks, based on portions of said noise-eliminated audio data, the portions having signal levels lower than a predetermined level threshold value (col. 5 line 1-12, limitation, "predetermined threshold" is inherent to invention because silence is a threshold); specifying said inter-track boundaries from said presumed inter-track

Art Unit: 2614

boundaries, based on inter-track boundaries specifying information including a number of said plurality of tracks; judging whether a number of presumed tracks is less than said number of said plurality of tracks (Fig. 2 and col. 4 line 42-67 and col. 5 line 25-37) ; and detecting said inter-track boundaries of said plurality of tracks, the presumed tracks being tracks divided by said presumed inter-track boundaries (Fig. 2 and col. 5 line 1-37).

Gilbert does not explicitly disclose based on an other level threshold value greater than said predetermined level threshold value, when it is judged that the number of presumed tracks is less than said number of said plurality of tracks.

However Gilbert discloses changing a threshold when it is judged that the number of presumed tracks is less than said number of said plurality of tracks (Fig. 2 and col. 5 lines 1-37).

Zhang discloses silence detection based on a predetermined threshold and an other level threshold value greater than said predetermined level threshold value when an error may have occurred (col. 7 lines 23-45).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the audio encoder of Gilbert with the audio blank detecting means of Zhang in order to have a reliable method of determining audio segments.

Art Unit: 2614

Claim 7, Gilbert discloses an information processing apparatus for detecting inter-track boundaries (abstract), comprising: a generation unit configured to generate noise-eliminated audio data by eliminating noise from audio data generated by digitally converting analog audio signals of a plurality of tracks, the plurality of tracks having inter-track boundaries that are silent (col. 4 line 6-15 and col. 4 line 30-39); a detection unit configured to detect presumed inter-track boundaries presumed to be said inter-track boundaries of said plurality of tracks, based on portions of said noise-eliminated audio data, the portions having signal levels lower than a predetermined level threshold value (col. 5 line 1-12, limitation, "predetermined threshold" is inherent to invention because silence is a threshold);

a processor configured to judge whether a number of presumed tracks is less than a number of said plurality of tracks; a specifying unit configured to specify said inter-track boundaries from said presumed

inter-track boundaries, based on inter-track boundaries specifying information including said number of said plurality of tracks (Fig. 2 and col. 5 line 1-37), wherein the detection unit is further configured to detect said inter-track boundaries of said plurality of tracks, the presumed tracks being tracks divided by said presumed inter-track boundaries (Fig. 2 and col. 5 line 1-37).

Gilbert does not explicitly disclose based on an other level threshold value greater than said predetermined level threshold value, when the processor judges that said number of presumed tracks is less than said number of said plurality of tracks,

Art Unit: 2614

However Gilbert discloses changing a threshold when the processor judges that said number of presumed tracks is less than said number of said plurality of tracks (Fig. 2 and col. 5 lines 1-37).

Zhang discloses silence detection based on a predetermined threshold and an other level threshold value greater than said predetermined level threshold value when an error may have occurred (col. 7 lines 23-45).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the audio encoder of Gilbert with the audio blank detecting means of Zhang in order to have a reliable method of determining audio segments.

Claim 8 analyzed with respect to claim 5, Gilbert discloses wherein the specifying includes specifying, as said inter-track boundaries presumed inter-track boundaries in between presumed tracks (col. 4 line 30-39), said inter-track boundaries specifying information including the shortest playing time and the longest playing time (col 4 line 47-51).

Gilbert does not explicitly disclose the presumed tracks having playing times longer than a shortest playing time among playing times of said plurality of tracks and shorter than a longest playing time among of said plurality of playing times of the tracks.

However Gilbert discloses matching track lengths, (col. 5 line 27-31) and detecting a smaller than average track (col. 4 line 57-67).

Art Unit: 2614

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the audio method of Gilbert determines a track length error by noting smaller or larger than average track lengths.

Claim 9 analyzed with respect to claim 5, Gilbert discloses wherein the specifying includes presuming said presumed inter-track boundaries as said inter-track boundaries based on errors between presumed track playing times of the presumed tracks and playing times of said plurality of tracks (col. 5 line 25-37), said inter-track boundaries specifying information including the playing times of said plurality of tracks (col. 4 line 49-50).

Claim 11 analyzed with respect to claim 6, Gilbert discloses wherein the specifying includes specifying, as said inter-track boundaries presumed inter-track boundaries in between presumed tracks (col. 4 line 30-39), said inter-track boundaries specifying information including the shortest playing time and the longest playing time (col 4 line 47-51).

Gilbert does not explicitly disclose the presumed tracks having playing times longer than a shortest playing time among playing times of said plurality of tracks and shorter than a longest playing time among of said plurality of playing times of the tracks.

However Gilbert discloses matching track lengths, (col. 5 line 27-31) and detecting a smaller than average track (col. 4 line 57-67).

Art Unit: 2614

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the audio method of Gilbert determines a track length error by noting smaller or larger than average track lengths.

Claim 12 analyzed with respect to claim 6, Gilbert discloses wherein the specifying includes presuming said presumed inter-track boundaries as said inter-track boundaries based on errors between presumed track playing times of the presumed tracks and playing times of said plurality of tracks (col. 5 line 25-37), said inter-track boundaries specifying information including the playing times of said plurality of tracks (col. 4 line 49-50).

Claim 14 analyzed with respect to claim 7, Gilbert discloses wherein the specifying unit is configured to specify, as said inter-track boundaries, said presumed inter-track boundaries in between presumed tracks (col. 4 line 30-39), said inter-track boundaries specifying information including the shortest playing time and the longest playing time (col 4 line 47-51).

Gilbert et al does not explicitly disclose the presumed tracks having presumed track playing times longer than a shortest playing time among playing times of said plurality of tracks and shorter than a longest playing time among playing times of said plurality of tracks.

Art Unit: 2614

However Gilbert discloses matching track lengths, (col. 5 line 27-31) and detecting a smaller than average track (col. 4 line 61-67).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the audio method of Gilbert determines a track length error by noting smaller or larger than average track lengths.

Claim 15 analyzed with respect to claim 7, Gilbert discloses wherein the specifying unit is configured to presume said presumed inter-track boundaries as said inter-track boundaries based on errors between presumed track playing times of the presumed tracks and playing times of said plurality of tracks (col. 5 line 25-37), said inter-track boundaries specifying information including the playing times of said plurality of tracks (col. 4 line 49-50).

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2614

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FATIMAT O. OLANIRAN whose telephone number is (571)270-3437. The examiner can normally be reached on M-F 10:00-6 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/812,967

Page 14

Art Unit: 2614

FO

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2614